

WHAT IS CLAIMED IS:

1. A method of operating an intelligent digital device (IDD) receiving an eXtensible Markup Language (XML) document containing data and respective Document Type Definition (DTD) describing the data content, comprising:

5 verifying that a received DTD satisfies a predetermined criteria; and
operating on the data contained in the XML document.

10 2. The method as recited in claim 1, wherein the IDD maintains a list of trusted DTDs
and wherein the predetermined criteria is equality between the name of the received DTD and the
name of a trusted DTD.

15 3. The method as recited in claim 1, wherein the predetermined criteria comprises the
inclusion of the name of a program residing on the IDD.

4. The method as recited in claim 3, wherein the program comprises an XML-enabled
program.

20 5. The method as recited in claim 3, wherein the program comprises an XML parser.

6. A method of operating a system including a digital network interconnected intelligent
digital devices (IDDs) generating and receiving eXtensible Markup Language (XML) documents
containing data and respective Document Type Definitions (DTDs) describing the data content,
comprising:

25 transmitting a generated XML document from a first IDD to a second IDD; and
when the respective DTD for the generated XML document satisfies a predetermined
criteria, operating on the data contained in the XML document at the second IDD.

7. The method as recited in claim 6, wherein the second IDD maintains a list of trusted

DTDs and wherein the predetermined criteria is equality between the name of the respective DTD and the name of a trusted DTD.

8. The method as recited in claim 6, wherein the predetermined criteria comprises the inclusion of the name of a program residing on the second IDD.

9. The method as recited in claim 8, wherein the program comprises an XML-enabled program.

10. The method as recited in claim 8, wherein the program comprises an XML processor.

11. The method as recited in claim 6, wherein:

the transmitting step comprises transmitting the generated XML document from the first IDD to the second IDD and a third IDD;

the operating step comprises operating on the data contained in the XML document at the second IDD when the respective DTD for the generated XML document satisfies a first predetermined criteria, and

the method further comprises the step of operating on the data contained in the XML document at the third IDD when the respective DTD for the generated XML document satisfies a second predetermined criteria.

12. The method as recited in claim 11, wherein:

the second IDD maintains a first list of trusted DTDs;

the third IDD maintains a second list of trusted DTDs;

the first predetermined criteria is equality between the name of the respective DTD and the name of a trusted DTD on the first list; and

the second predetermined criteria is equality between the name of the respective DTD and the name of a trusted DTD on the second list.

13. The method as recited in claim 11, wherein the XML document and the respective DTD are transmitted to the second and third IDDs.

14. The method as recited in claim 11, wherein the respective DTD is stored on at least 5 one of the second and third IDDs.

15. A method of operating a system including a digital network interconnected intelligent digital devices (IDDs) generating and receiving eXtensible Markup Language (XML) documents containing data and respective Document Type Definitions (DTDs) describing the data content, 10 comprising:

- (a) generating an XML document containing related data and a reference to a respective DTD at a first IDD responsive to a command from a second IDD;
- (b) transmitting the XML document from the first to the second IDD;
- (c) when the respective DTD satisfies a predetermined criteria, parsing the data in the XML document in accordance with the format described in the respective DTD to thereby generate parsed data from the related data; and
- (d) operating on the parsed data.

16. The method as recited in claim 15, wherein:

20 the second IDD stores a list of trusted DTDs associated with respective XML processors; the predetermined criteria is coincidence between the respective DTD and a trusted DTD on the list; and

the parsing and the operating steps are performed using the one of the XML processors corresponding to the respective DTD.

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17. The method as recited in claim 16, wherein:

the second IDD stores a plurality of DTDs and associated XML processors; the XML document references the respective DTD; and the parsing and the operating steps are performed using the one of the XML processors

corresponding to the respective DTD.

18. A system comprising:

5 a plurality of intelligent digital devices (IDDs) interconnected to one another, each of the
 IDDs being capable of one of generating and receiving an eXtensible Markup Language (XML)
 document containing data and referencing a document type definition (DTD); wherein:

10 a first IDD generates the XML document responsive to a command received over the
 IHDN;

 a second IDD stores N XML processors associated with N named DTDs;

 a third IDD stores M XML processors associated with M named DTDs;

15 the second IDD processes the XML document using one of the N XML processors when
 the respective DTD corresponds to one of the N named DTDs;

 the third IDD processes the XML document using one of the M XML processors when
 the respective DTD corresponds to one of the M named DTDs; and

 N and M are both positive integers.

16 20 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 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22. The system as recited in claim 18, wherein said IDDs are interconnected to one another by an in home digital network (IHDN).

23. The system as recited in claim 18, wherein said IDDs are interconnected to one
5 another via the internet.